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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,609	05/03/2007	Mathieu Chanfreau	RFR0131	5969
27305 7590 08/18/2008 HOWARD & HOWARD ATTORNEYS, P.C. THE PINEHURST OFFICE CENTER, SUITE #101 39400 WOODWARD AVENUE BLOOMFIELD HILLS, MI 48304-5151				
EXAMINER				
NGUYEN, HUNG Q				
ART UNIT		PAPER NUMBER		
4177				
MAIL DATE		DELIVERY MODE		
08/18/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/583,609

**Applicant(s)**

CHANFREAU, MATHIEU

**Examiner**

HUNG Q. NGUYEN

**Art Unit**

4177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Objections***

2. Claim 3 is objected to because of the following informalities:

Claim 3, line 2, "either of claims 1 *and* 2" should be replaced with -- either claim 1 or claim 2 --

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomaselli (WO 2004/044402 A1) in view of Leedham et al. (PG Pub. 2003/0150434 A1).
5. Tomaselli discloses a heat exchange tube bundle 30 (fig. 1-5) for regulating the temperature of an intake air mixture and of recirculated exhaust gases entering an internal combustion engine of a motor vehicle, comprising a feed air cooler 30A (fig. 1-5, which includes zones Z1 & Z2) and a recirculated exhaust gas cooler 30B (fig. 1-5), the feed air cooler 30A (which includes zones Z1 & Z2) comprising a feed air inlet manifold

(see fig. 1 below) and a feed air outlet manifold (see fig. 1 below), a feed air inlet line (see fig. 1 below) being connected to the air inlet manifold, and a feed air outlet line (see fig. 1 below) to the air outlet manifold of the feed air cooler 30A, the recirculated exhaust gas cooler 30B comprising a recirculated exhaust gas inlet manifold (see fig. 1 below) and a recirculated exhaust gas outlet manifold (see fig. 1 below), a recirculated exhaust gas inlet line 26 (see fig. 1 below) being connected to the exhaust gas inlet manifold of the recirculated exhaust gas cooler 30B, characterized in that it comprises a first bypass 52 (see fig. 1 below) directly connecting the exhaust gas inlet manifold to the exhaust gas outlet manifold of the recirculated exhaust gas cooler 30B.

However, Tomaselli does not explicitly disclose that the first bypass 52 is incorporated in the heat exchange tube bundle.

Leedham et al. disclose an EGR cooler device (fig. 1) comprising an exhaust bypass 50 (fig. 1) being connected to an exhaust gas inlet manifold 10 and an exhaust has outlet manifold 12, and incorporated in the EGR cooler device.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Tomaselli's bypass in the heat exchange tube bundle, as suggested by Leedham et al., for the purpose of obtaining a much more compact design and allowing easier installation (see last 3 lines of Abstract of Leedham).

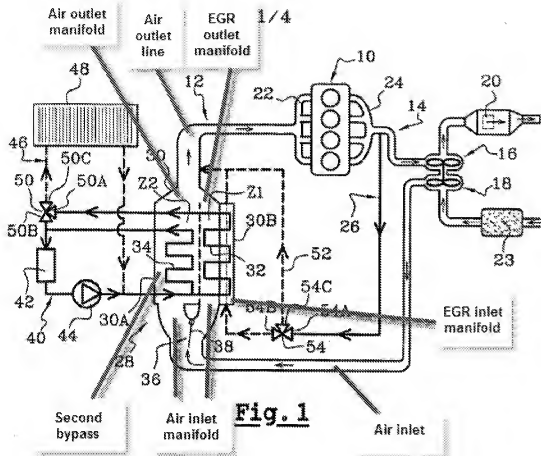
6. Regarding claim 2, Tomaselli disclose a heat exchange tube bundle comprising a second bypass (see fig. 1 below) directly connecting the air inlet manifold to the air

outlet manifold of the feed air cooler 30A (which includes zones Z1 & Z2) and incorporated in the heat exchange tube bundle 30.

Note, Tomaselli teaches a valve 38 of an air distribution means 36 (see figure 1-4) which can be adjusted to regulate a flow of intake air into zones Z1 & Z2 of the feed air cooler 30A (see attached document for a machine-translation of WO-2004/044402 A1, page 5, lines 11-24). As can be seen on fig. 1-3, the valve 38 is adjusted to allow a first portion of intake air into zone Z1 and bypass a second portion of intake air into zone Z2; therefore, zone Z2 of the feed air cooler 30A is considered to be a "second bypass" directly connecting the air inlet manifold to the air outlet manifold of the feed air cooler 30A and incorporated in the heat exchange tube bundle 30.

7. Regarding claim 3, Tomaselli discloses a heat exchange tube bundle 30 comprising a first distribution means 54 (see fig. 1 below) for distributing the recirculated exhaust gases between the recirculated exhaust gas cooler 30B and the first bypass 52.

8. Claims 4-19 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim *should refer to other claims in the alternative only and cannot depend from any other multiple dependent claim*. See MPEP § 608.01(n). Accordingly, the claims 3-19 have not been further treated on the merits.



## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. NGUYEN whose telephone number is (571) 270-5424. The examiner can normally be reached on Mon-Thu 8am - 4pm and alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quang D. Thanh can be reached on (571) 272-4982. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. Q. N./  
Examiner, Art Unit 4177

/Quang D. Thanh/  
Supervisory Patent Examiner, Art  
Unit 4177